Becoming a scientific researcher is so much more than simply learning ecological processes and writing papers. I came to this realization in 2017 when I interned for the Fisheries Division of the National Oceanic and Atmospheric Administration (NOAA). Here, I was first exposed to mathematical modelling, computer coding, and the world of quantitative biology as we modeled populations of the Aurora rockfish. It combined my interest in biology with my mathematical abilities, and showed me how biologists, economists, and industry workers all come together with the shared goal of fisheries conservation. I learned that that is exactly what I want to with my career, and it feels amazing to have a concrete direction. But that’s actually not the most drastic change of heart I experienced that summer.

There was also a field component to this internship. Every year, NOAA does a survey of commercial fishing regions to quantify commercially fished stocks in order to set up next years’ quotas. This meant working and living on a commercial fishing vessel for a few weeks alongside scientists and fishermen. I’d be lying if I said I wasn’t anxious about sharing a living space with people with such a rough reputation. However, those notions of fishermen I had before the boat completely dissipated when I found myself among some of the most genuine, loving, and side-splittingly hilarious people I’ve met in my lifetime. Almost everything that came out of their mouths was a joke and I think I spent more time laughing than actually working. I also quickly adopted this light-hearted attitude, which I think is a product of the combination of fishing being one of the most dangerous jobs in America and you’re essentially sharing a one-bedroom apartment that smells bad with six other people. We often got to talking about how fishing regulations directly affects their business and families, and how some laws, although intended to help the environment, had sometimes impeded fishing activity and had unforeseen consequences for their community. I learned how complex environmental issues can be and that it’s easy to approach conservation from an academic ivory tower, but it is much more difficult to really consider the lives and needs of the people most reliant on these resources. This is essential to enacting meaningful environmental change, and something that scientists must consider when influencers lawmakers and stakeholders.

Ever since, I have tried to approach conservation from a more nuanced point of view and have always tried to engage with the people directly affected by environmental change. After that, I studied abroad for my first time in Costa Rica. There, I got to engage with students fighting to preserve their country’s beautiful jungles and beaches. Tourism is a large part of the economy of this country, and from these students I got to learn how this can sometimes be utilized to protect the environment and community, but also how tourism can have detrimental effects on the host community when the specific environmental and cultural dynamics are not considered when promoting foreigners to explore your country. From there, I had the opportunity to intern for a summer in Germany studying carbon sources in small inland lakes. Climate change, one of the most complicated environmental issues today, was often discussed on this project, and it was intriguing to get a perspective from a country actively trying to be a part of the solution. I learned about how a government can address these problems while considering how this affects the everyday lives of its citizens and what an open dialogue about climate change can look like.

All these experiences have made me a better scientist. Not just because of the methods or math that I learned, but also taught me that each place has a unique combination of environmental and social issues that each country faces in the threat of ecological collapse, and addressing these complexities is the only way to write ecological success stories. I feel it is such a privilege to meet and learn from all different perspectives on our relationship with the environment, and I would be humbled at the opportunity to return to fisheries research and learn about the complex and nuanced experiences of the people involved in Indonesia’s fishing community.

 For the international experiences, I honestly think that less is more. Instead of adding a third experience, I would challenge you to think about which ONE of those experiences was most significant in shifting your perspective on how we understand environmental issues in a more nuanced/culturally specific way and focusing on that in more depth.